

## MARINE CHEMIST CERTIFICATE

SERIAL NO. B 83939

J.O.# 814

SBA SHIPYARD

Survey Requested by

ST-6

Vessel

JT-10

Last Three (3) Cargoes

PETROLENE INC

Vessel Owner or Agent

TANK BARGE

Type of Vessel

SW COMB

Test Method

2-6-84

Date

SBA/Beaumont

Specific Location of Vessel

8:30 AM

Time Survey Completed

BOW RAKE  
STERN RAKE

SAFE FOR WORKERS

WING VOID D.B.<sup>12</sup>  
1-2-3-4 P/S

SAFE FOR HOTWORK

CARGO TANKS

1-2-3 - SAFE FOR WORKERS - SAFE FOR HOTWORK.  
FIRE WATCH WITH CHARGED FIREHOSE  
REQD. FOR HOTWORK.

STEAM COILS - BLOWN - SAFE FOR HOTWORK

CARGO LINES - DRAINED

PORTABLE AIR VENTILATION REQD. IN WORK TANK.  
(MIN. 1000 CFM)

In the event of any physical or atmospheric changes adversely affecting the STANDARD SAFETY DESIGNATIONS assigned to any of the above spaces, or if in any doubt, immediately stop all work and contact the undersigned Marine Chemist.

**QUALIFICATIONS:** Transfer of ballast or manipulation of valves or closure equipment tending to alter conditions in pipe lines, tanks or compartments subject to gas accumulation, unless specifically approved in this Certificate, requires inspection and endorsement or release of Certificate for the spaces so affected. All lines, vents, heating coils, valves, and similarly enclosed appurtenances shall be considered "not safe" unless otherwise specifically designated.

**STANDARD SAFETY DESIGNATIONS** (partial list, paraphrased from NFPA 306-1980, Subsections 1-6.1 through 1-6.4, and Subsection 5-3.2).

**SAFE FOR WORKERS:** Means that in the compartment or space so designated: (a) the oxygen content of the atmosphere is at least 19.5 percent by volume; and that, (b) toxic materials in the atmosphere are within permissible concentrations; and that, (c) the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Marine Chemist's Certificate.

**NOT SAFE FOR WORKERS:** Means that in the compartment or space so designated, the requirements of Safe for Workers has not been met.

**SAFE FOR HOT WORK:** Means that in the compartment so designated: (a) oxygen content of the atmosphere is at least 19.5 percent by volume, with the exception of inerted spaces or where external hot work is to be performed; and that, (b) the concentration of flammable materials in the atmosphere is below 10 percent of the lower flammable limit; and that, (c) the residues are not capable of producing a higher concentration than permitted by (b) above under existing atmospheric conditions in the presence of fire, and while maintained as directed on the Marine Chemist's Certificate; and further, that, (d) all adjacent spaces containing or having contained flammable or combustible materials have been cleaned sufficiently to prevent the spread of fire, or are satisfactorily inerted, or, in the case of fuel tanks or lube oil tanks or engine room or fire room bilges, have been treated in accordance with the Marine Chemist's requirements.

**NOT SAFE FOR HOT WORK:** Means that in the compartment so designated, the requirements of Safe for Hot Work have not been met.

**SAFE FOR REPAIR YARD ENTRY:** Means that the compartments and spaces of the flammable cryogenic liquid carrier so designated: (a) have been tested by sampling at remote sampling stations, and results indicate the atmosphere to be above 19.5 percent oxygen, and less than 10 percent of the lower flammable limit, or (b) are inerted.

**CHEMIST'S ENDORSEMENT.** This is to certify that I have personally determined that all spaces in the foregoing list are in accordance with NFPA 306-1980 Control of Gas Hazards on Vessels and have found the condition of each to be in accordance with its assigned designation.

"The undersigned acknowledges receipt of this Certificate under Section 2.3 of NFPA 306-1980 and understands conditions and limitations under which it was issued."

This Certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Signed Robert H. SBA

Name

Company

Date

Signed Thomas J. Bunker

Marine Chemist

Certificate No.

NOTE: THIS CERTIFICATE IS VALID ONLY ON MARINE VESSELS